

## Crowders Mountain State Park Permanent Orienteering Course Instructions

The map.

**Scale:** 1:10,000, one centimeter on the map = 100 meters on the ground.

**Contour interval:** 5 meters, every time you cross a contour line you either gain or lose 5 meters elevation.

**Magnetic North Meridians:** vertical black lines pointing towards the top of the map or north.

Color coding:

**Black:** man-made objects and rock features

**Blue:** water, lakes and streams.

**Green:** ground level vegetation, the darker the green the slower and more difficult the travel.

**Yellow:** Several shades of yellow indicate varying degrees of open land from mowed grass to rough open with scattered trees.

**Brown:** contour lines and earthen features like gullies, ditches, pits and rootstocks.

**White:** the white areas are open forest with very little or no ground level vegetation.

**Red:** Start triangle and control locations and numbers.

Take a minute and familiarize yourself with the **legend**. Identify some of the features on the map.

The **Clue Sheet** on the back of map gives control feature descriptions.

Orienting the map.

Stand at the flag pole in front of the visitor's center, facing the parking lot. You are standing in the middle of the **red start triangle**. Hold the map flat with your **compass** on top. Notice the north end of the **magnetic needle** is pointing to your right. Rotate the map and compass until the **north meridians**, four vertical black lines on the map, are aligned (parallel) with the compass needle and the northern end points toward the top of the map. Now the map is **oriented** and matches what you see on the ground. If you look across the parking lot you see an open field. The open field is the yellow area on the map show just beyond the parking lot. As you travel from control to control, you should always keep the map oriented, reading the map and anticipating what you should see on the ground.

**Courses:** Visit the control points in numerical order.

**White:** Beginner course, controls mostly on or visible from trails. Length: 2.5 km.

Control sequence: 7, 5, 19, 17, 16, 14, 13.

**Yellow:** Beginner course, longer and more controls than white. Length: 3.9 km.

Control sequence: 7, 15, 17, 18, 6, 21, 4, 3, 2, 9.

**Orange:** Intermediate level course, a mix of easy and difficult controls. This course requires off trail, cross country travel. The orienteerer must utilize land features such as streams and reentrants and compass bearings to navigate to the control points. Length: 4.9 km.

Control sequence: 6, 15, 17, 20, 22, 23, 3, 8, 1, 10, 11, 12.

This suggested course sequence is just a guide to get you started. You can mix and match the controls and order visited to design your own courses, depending on your desired level of difficulty. Easier controls are on or near trails. Harder controls are farther off trails. Permanent orienteering courses provide different courses options to continue to challenge and practice navigation. For further information on Orienteering or to participate in Orienteering Meets visit [www.carolina-ok.org](http://www.carolina-ok.org).

# CROWDERS MOUNTAIN STATE PARK

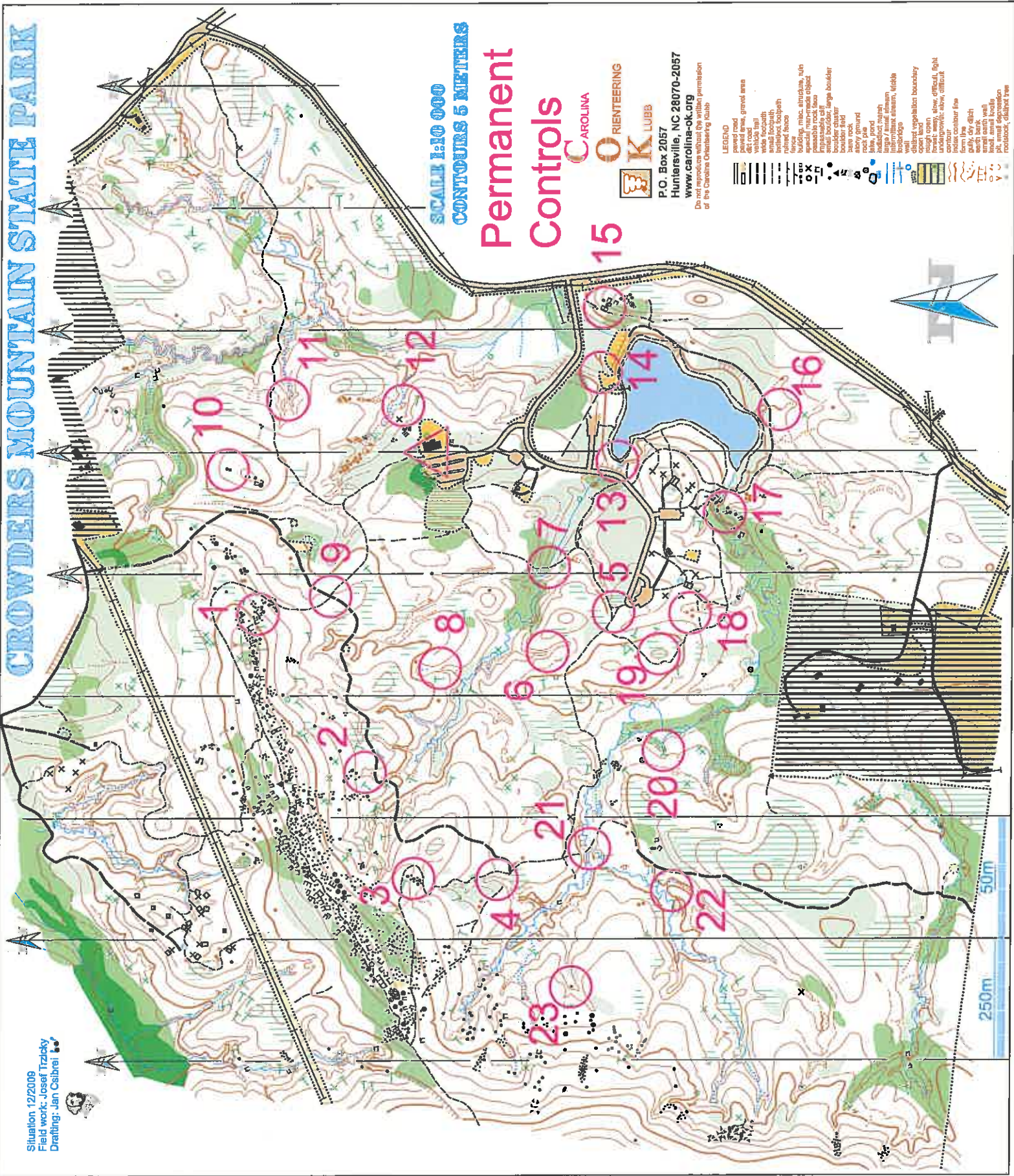
Situation 12/2008  
Field work: Josef Trzasky  
Drafting: Jan Osbirel

SCALE 1:10 000  
CONTOURS 5 METERS

## Permanent Controls

CAROLINA  
ORIENTEERING  
K LUBS  
P.O. Box 2057  
Huntersville, NC 28070-2057  
www.carolina-ok.org  
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- LEGEND**
- ▬ paved road
  - ▬ gravel area, gravel area
  - ▬ vehicle path
  - ▬ wide footpath
  - ▬ narrow footpath
  - ▬ isolated, steeply
  - ▬ ruined fence
  - ▬ building, misc. structure, ruin
  - ▬ special man-made object
  - ▬ passable rock line
  - ▬ small boulder, large boulder
  - ▬ boulder cluster
  - ▬ bare rock
  - ▬ sandy ground
  - ▬ lawn, pond
  - ▬ isolated, rough
  - ▬ isolated, smooth
  - ▬ intermediate stream, little
  - ▬ stream
  - ▬ distinct vegetation boundary
  - ▬ open land
  - ▬ forest, very dense
  - ▬ forest, very open, difficult
  - ▬ undergrowth: slow, difficult
  - ▬ ridge contour line
  - ▬ gully, dry ditch
  - ▬ small earth wall
  - ▬ small, small hole
  - ▬ small, small hole
  - ▬ roadblock, distant tree



Permanent				Start Building West side
Start	△	■		
1		▬		○
2		∧		
3		▲▲▲		
4		∧		
5		∕	Y	
6		∧		
7		∕	X	
8		∧		
9		∕	X	
10		▲		
11		∧	Y	
12		∞		○
13		∕		○
14		∕		○
15		▬		○
16		∧		
17		▬		○
18		•		
19		○		○
20		≡		○
21		∞	Y	
22				○
23		▲		○